

PLEASE AMEND THE CLAIMS AS FOLLOWS:

3. (Twice Amended) The method of claim 1 wherein said top metallization system contains lines that are selected from the group consisting of signal lines, power buses, ground buses or a combination thereof.

Please cancel claims 4-10.

15. (Twice Amended) The method of claim 1 wherein said insulating, separating layer of polymer comprises polyimide.

19. (Twice Amended) The method of claim 1 wherein said insulating, separating layer of polymer is cured at a temperature within a range of approximately 250 to 450 degrees C. for a time within a range of approximately 0.5 to 1.5 hours, said curing to occur within a vacuum or nitrogen ambient.

21. (Twice Amended) The method of claim 20 wherein each of said multiple processing steps of spin on coating and curing is performed at a temperature within a range of approximately 250 to 450 degrees C. for a time within a range of approximately 0.5 to 1.5 hours, said curing to occur within a vacuum or nitrogen ambient.

50. (Twice Amended) The method of claim 49 wherein said top metallization system contains lines that are selected from the group consisting of signal lines, power buses and ground buses or a combination thereof.

Please cancel claims 51-55.

81. (Amended) A method for forming a top metallization system for high performance integrated circuits comprising:

forming an integrated circuit comprising a plurality of devices formed in and on a semiconductor substrate, with an overlaying interconnecting metallization structure connected to said devices and comprising a plurality of first metal lines in one or more layers, wherein intermetal dielectric layers are formed between said plurality of first metal lines;

depositing a passivation layer over said interconnecting metallization structure;

depositing a polymer insulating, separating layer over said passivation layer that is substantially thicker than each of said intermetal dielectric layers;

forming openings through said polymer insulating, separating layer and said passivation layer to expose upper metal portions of said overlaying interconnecting metallization structure; depositing metal contacts in said openings; and

forming said top metallization system connected to said overlaying interconnecting metallization structure, wherein said top metallization system comprises a plurality of top metal lines, in one or more layers, each of said top metal lines having a width